



The Safety Association for Canada's  
Upstream Oil and Gas Industry

## Abandonment Operation Exposes Workers to Wellbore Chemicals, Gases and Liquids Lost Time Incident

SAFETY ALERT

ISSUE #: 19-2011

### Enform: Your Partner in Safety

Enform is the upstream oil and gas industry's advocate and leading resource for the continuous improvement of safety performance. Our mission is to help companies achieve their safety goals by providing practices, assessment, training, support, metrics and communication. Our vision is no work-related incidents or injuries in the Canadian upstream oil and gas industry.

### An Industry Product

This document was developed by industry for industry. Working collaboratively, Enform works with the submitting organization representative in developing these documents to improve the industry's hazard awareness. Canada's leading oil and gas industry trade associations support the use of shared information to help companies of all sizes improve performance.

### Disclaimer

This document is intended to be flexible in application and provide guidance to users rather than act as a prescriptive solution. Recognizing that one solution is not appropriate for all users and situations, it presents accepted guidance that generally apply to all situations. While Enform believes that the information contained herein is reliable under the conditions and subject to the limitations set out, Enform does not guarantee its accuracy. The use of this document or any information contained will be at the user's sole risk, regardless of any fault or negligence of Enform and the submitting organization.

### Copyright/Right to Reproduce

Copyright for this document is held by Enform, 2011. All rights reserved. Enform encourages the copying, reproduction and distribution of this document to promote health and safety in the workplace, provided that Enform is acknowledged. However, no part of this publication may be copied, reproduced or distributed for profit or other commercial enterprise, nor may any part be incorporated into any other publication, without written permission of Enform.

### Details

Release Date: September 2011  
Incidence Type: Equipment Failure  
Country and Region: Alberta, Canada

For more information on this event, please contact: [safety@enform.ca](mailto:safety@enform.ca)

### Description of Incident:

- A gas kick occurred during an abandonment operation with no warning signs exposing the rig crew to high pressure gas, crude oil, produced water and wellbore solvent.
- Crew prevented a blowout while being exposed to gas, liquids and chemicals.

### What caused it:

- Undetected gas kick surfaced.
- An exposed sucker rod, 6.0 m above the tubing top was unable to be secured with a rod BOP, resulting in an unprotected rig crew.

### Corrective Actions:

- Rod handling equipment changed over to tubing handling equipment.
- Crew installed stabbing valve onto tubing joint, hoisted and lubricated over rod and secured into tubing joint at floor level.
- Tubing was lowered to floor level, stabbing valve closed and well was secure.
- Crew received medical aid, after being exposed to the wellbore fluids.

### Preventive Actions:

Investigation produced the following preventive recommendations:

- Follow established well control procedures (Well Service BOP)
- Wet trip any production strings where unable to utilize Coiled Tubing Unit to maintain isolation on tubing from any annular pressures.
- Onsite rod shearing equipment for use on rods that are preventing immediate installation of blow out prevention equipment.
- Utilization of pump and tank with calculated kill volume(s) Other Preventative actions may include.
- Identify all known and potential chemical hazards
- Ensure supplier of chemicals provides accurate and current MSDS
- Review Material Safety Data Sheets prior to commencing operations and use appropriate PPE and other controls.
- Ensure that wet gear and SCBA air packs are in placed in a central location if stripping is required.
- Ensure onsite showers or facilities are available if workers are exposed to any reservoir fluids or chemical solvents.

By industry, for industry

